

Applicants : Philip Livingston and Friedhelm Helling
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being effective to stimulate or enhance antibody production in a subject, and a pharmaceutically acceptable carrier, wherein the Keyhole Limpet Hemocyanin derivative comprises Keyhole Limpet Hemocyanin linked to an immunological adjuvant.--

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--62. (Amended) The composition of claim 57, wherein the immunological adjuvant is a monophospholipid, a non-ionic block copolymer or a cytokine [ganglioside is conjugated to Keyhole Limpet Hemocyanin].--

--63. (Amended) The composition of claim 57, wherein the adjuvant is a [carbohydrate] saponin derivable from the bark of a Quillaja saponaria Molina tree.--

--64. (Amended) The composition of claim 63, wherein the [carbohydrate] saponin is OS-21.--

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--71. (Amended) A method of stimulating or enhancing antibody production in a subject which comprises administering to the subject an effective amount of a composition comprising a ganglioside conjugated through [the] a ceramide-derived carbon [portion] of the ganglioside to a Keyhole Limpet Hemocyanin or a derivative thereof and an adjuvant, the amounts of such conjugated ganglioside and such adjuvant being effective to stimulate or enhance antibody production in a subject, and a pharmaceutically acceptable carrier, wherein the Keyhole Limpet Hemocyanin derivative comprises Keyhole Limpet Hemocyanin linked to an immunological adjuvant, so as to thereby stimulate or enhance antibody production in the subject.--

--72. (Amended) A method of preventing or treating a cancer in

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a subject which comprises administering to the subject an effective cancer preventing or treating amount of [the] a composition a ganglioside conjugated through a ceramide-derived carbon of the ganglioside to Keyhole Limpet Hemocyanin or a derivative thereof and an adjuvant, the amounts of such conjugated ganglioside and such adjuvant being effective to stimulate or enhance antibody production in a subject, and a pharmaceutically acceptable carrier, wherein the Keyhole Limpet Hemocyanin derivative comprises Keyhole Limpet Hemocyanin linked to an immunological adjuvant, so as to thereby prevent or treat a cancer in a subject [of claim 57].--

- F4
- 78. (New) The method of claim 71, wherein the cancer is of epithelial origin.--
- 79. (New) The method of claim 71, wherein the cancer is of neuroectodermal origin.--
- 80. (New) The method of claim 79, wherein the cancer of neuroectodermal origin is a melanoma.--
- 81. (New) The method of claim 71, wherein the administering is effected at two or more sites.--
- 82. (New) The method of claim 81, wherein the administering is effected at three sites.--
- 83. (New) The method of claim 71, wherein the immunological adjuvant is a monophospholipid A, a non-ionic block copolymer or a cytokine.--
- 84. (New) The method of claim 71, wherein the wherein the

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adjuvant is a saponin derivable from the bark of a Quillaja saponaria Molina tree.--

--85. (New) The method of claim 84, wherein the saponin is QS-21.--

--86. (New) The method of claim 72, wherein the immunological adjuvant is a monophospholipid A, a non-ionic block copolymer or a cytokine.--

--87. (New) The method of claim 72, wherein the adjuvant is a saponin derivable from the bark of a Quillaja saponaria Molina tree.--

--88. (New) The method of claim 87, wherein the saponin is QS-21.--

--89. (New) A method of preventing relapse of a cancer in a subject which comprises administering to the subject an effective cancer relapse preventing amount of a composition comprising a ganglioside conjugated through a ceramide-derived carbon of the ganglioside to a Keyhole Limpet Hemocyanin or a derivative thereof and an adjuvant, the amounts of such conjugated ganglioside and such adjuvant being effective to stimulate or enhance antibody production in a subject, and a pharmaceutically acceptable carrier, wherein the Keyhole Limpet Hemocyanin derivative comprises Keyhole Limpet Hemocyanin linked to an immunological adjuvant so as to thereby prevent relapse of a cancer in the subject.--

--90. (New) The method of claim 89, wherein the cancer is of epithelial origin.--

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- 91. (New) The method of claim 89, wherein the cancer is of neuroectodermal origin.--
- 92. (New) The method of claim 91, wherein the cancer of neuroectodermal origin is a melanoma.--
- 93. (New) The method of claim 89, wherein the administering is effected at two or more sites.--
- 94. (New) The method of claim 93, wherein the administering is effected as three sites.--
- 95. (New) The method of claim 89, wherein the immunological adjuvant is a monophospholipid A, a non-ionic block copolymer or a cytokine.--
- 96. (New) The method of claim 89, wherein the adjuvant is a saponin derivable from the bark of a Quillaja saponaria Molina tree.--
- 97. (New) The method of claim 96, wherein the saponin is QS-21.--
- 98. (New) The composition of claim 57, wherein the conjugation of the ganglioside is through a carbon derived from a cleavage of a double bond in the ceramide portion of the ganglioside.--
- 99. (New) The composition of claim 57, wherein the conjugation of the ganglioside is through a carbon derived from a ceramide double bond to the Keyhole Limpet Hemocyanin or a derivative thereof.--

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